WHAT IS CLAIMED IS:

1. A modified therapeutic ordered peptide comprising a D-amino acid at the amino terminal end of the ordered amino acid motif $[^1E^2Y^3Y^4K]_n$, where n is from 2 to 6.

2. A formulation comprising the modified therapeutic ordered peptide of Claim 1 and a pharmaceutically acceptable carrier.

3. The modified therapeutic ordered peptide of claim 1 wherein n=3.

4. The modified therapeutic ordered peptide of Claim 3, wherein the D-amino acid is D-alanine.

5. The modified therapeutic ordered peptide of Claim 4, wherein the first amino acid of said motif is glutamic acid.

6. A method of treating a demyelinating autoimmune disease, the method comprising:

administering to a patient suffering from said demyelinating autoimmune disease a pharmaceutical formulation comprising:

an effective dose of a modified therapeutic ordered peptide comprising a D-amino acid at the amino terminal end of the therapeutic ordered amino acid motif $[^1E^2Y^3Y^4K]_n$, where n is from 2 to 6; and a pharmaceutically acceptable carrier;

wherein the clinical symptoms of said demyelinating autoimmune disease are reduced.

7. The method of Claim 6, wherein said demyelinating autoimmune disease is multiple sclerosis.

8. The method of Claim 6, wherein the D-amino acid at the amino terminal end of the modified therapeutic ordered amino acid motif is D-alanine.

9. The method of Claim 8, wherein n = 3.

10. The method of Claim 9, wherein the first amino acid of said motif is glutamic acid.

11. The method of Claim 10, wherein said administering comprises subcutaneous injection.

12. The method of Claim 10, wherein said administering is performed daily.

13. The method of Claim 10, wherein said patient suffering from said demyelinating autoimmune disease has the HLA-DR2 (DRB1*1501) allele.